

**ISO/IEC JTC 1/SC 2/WG 2  
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS  
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646<sup>1</sup>**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

**A. Administrative**

1. **Title:** *2. Proposals for addition of 4 characters / 11 reformed vowel signs / reformed shapes of 4 characters in total 19 characters in Tamil Block (0B80 – 0BFF)*
2. Requester's name: *A.R.Amaithi Anantham*
3. Requester type (Member body/Liaison/Individual contribution): *Individual Contribution*
4. Submission date: *07.05.2015*
5. Requester's reference (if applicable):
6. Choose one of the following:  
This is a complete proposal: *Complete*  
(or) More information will be provided later:

**B. Technical – General**

1. Choose one of the following:  
a. This proposal is for a new script (set of characters): *No*  
Proposed name of script: *Tamil-Latin (TL) Script*  
b. The proposal is for addition of character(s) to an existing block: *Yes*  
Name of the existing block: *Tamil Block (0B80 – 0BFF)*
2. Number of characters in proposal: *19*
3. Proposed category (select one from below - see section 2.2 of P&P document):  
A-Contemporary *15* B.1-Specialized (small collection) *4* B.2-Specialized (large collection)  
C-Major extinct D-Attested extinct E-Minor extinct  
F-Archaic Hieroglyphic or Ideographic G-Obscure or questionable usage symbols
4. Is a repertoire including character names provided? *Yes*  
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document? *Vide Enclosure 1*  
b. Are the character shapes attached in a legible form suitable for review? *Yes*
5. Fonts related:  
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?  
*National Body C – DAC*  
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):  
*[webmaster@cdac.in](mailto:webmaster@cdac.in); [webinfo@cdac.in](mailto:webinfo@cdac.in)*
6. References:  
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *Yes*  
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? *Amil Block*
7. Special encoding issues:  
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? *Yes*  
*Vide Enclosure .1, .2.1, 2.2, 3 and 4*

**8. Additional Information:**

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database ( <http://www.unicode.org/reports/tr44/> ) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

<sup>1</sup> Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

### C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? If YES explain	No
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? If YES, with whom? If YES, available relevant documents:	Yes <i>The Government of India</i>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? Reference:	<i>Tamil Community</i> <i>About 10 Cr, all over the world</i>
4. The context of use for the proposed characters (type of use; common or rare) Reference:	<i>Common use 15 and rare use 4</i>
5. Are the proposed characters in current use by the user community? If YES, where? Reference:	No
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? If YES, is a rationale provided? If YES, reference:	Yes Yes <i>Inconformity with Indic Script</i>
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? If YES, is a rationale for its inclusion provided? If YES, reference:	yes
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? If YES, is a rationale for its inclusion provided? If YES, reference:	No
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character? If YES, is a rationale for its inclusion provided? If YES, reference:	Yes Yes
11. Does the proposal include use of combining characters and/or use of composite sequences? If YES, is a rationale for such use provided? If YES, reference: Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? If YES, reference:	No
12. Does the proposal contain characters with any special properties such as control function or similar semantics? If YES, describe in detail (include attachment if necessary)	No
13. Does the proposal contain any Ideographic compatibility characters? If YES, are the equivalent corresponding unified ideographic characters identified? If YES, reference:	No

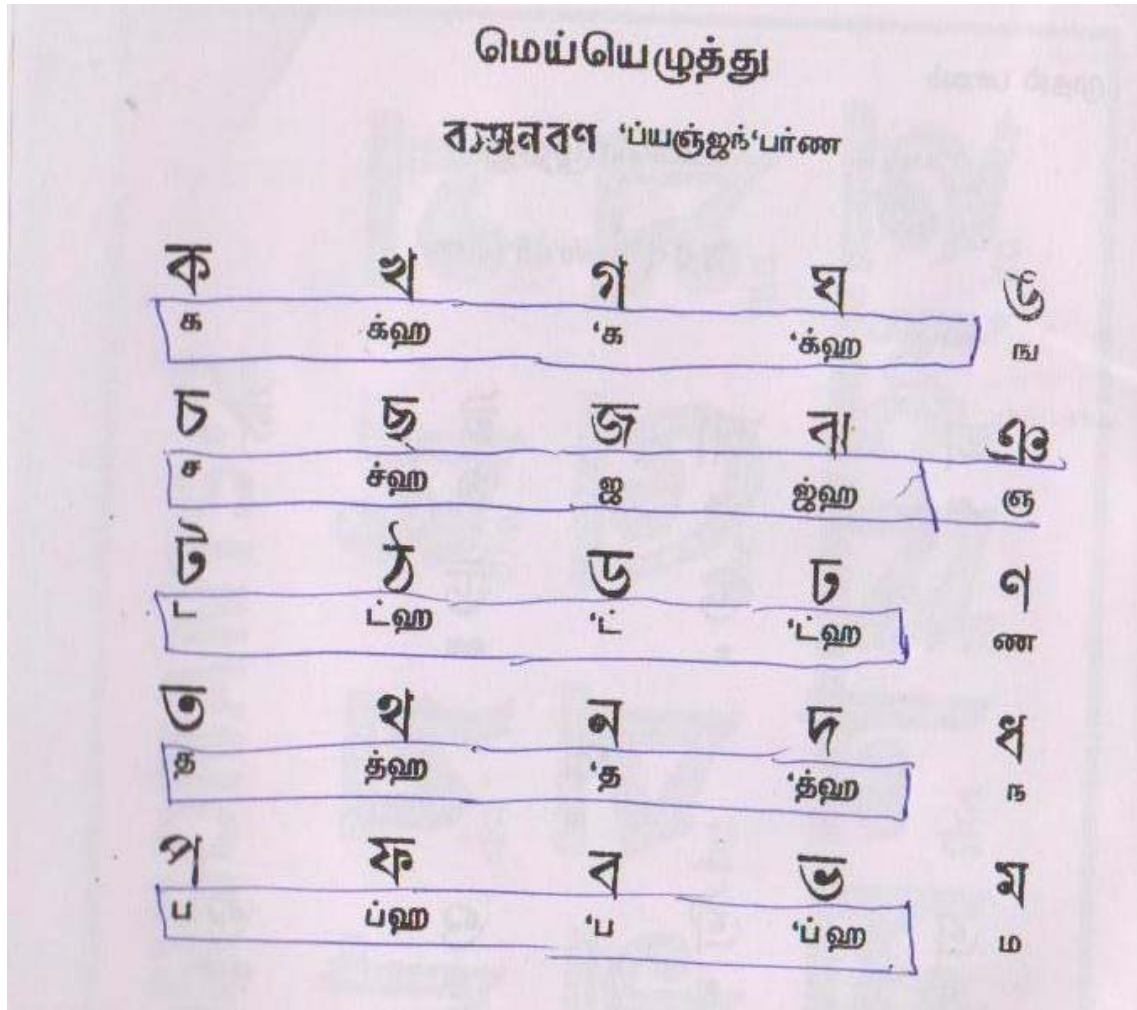
Proposals for addition of 4 characters, reforming of 11 vowel signs and reforming of shapes of 4 characters, totally 19 characters, in Tamil Block

## INTRODUCTION

The addition of characters will upgrade the Tamil Script, so as to transliteration of other Indic Scripts to Tamil Script, even though they are rarely used.

Four characters, being Sonant against Surds are required to be added. Greater difficulties are being met by for teaching other Indian languages through Tamil Scrip, as regard aspirated alphabets. To overcome this, the publishers provide unauthorized alphabets as given below, by Balagi Publications for learning Bengali Language and Hindi language through Tamil. There is no uniformity.

For Bengali: (1) க; (2) கஹ; (3) 'க; (4) 'கஹ Vide the imagebelow:



For Hindi: (1) क; (2) क<sup>2</sup>; (3) क<sup>3</sup>; (4) क<sup>4</sup>; Vide the image below:

**2. மெய் எழுத்துக்கள்  
(व्यंजन)**

क	ख	ग	घ	ङ
क <sup>2</sup>	क <sup>2</sup> (kh)	क <sup>3</sup> (g)	क <sup>4</sup> (gh)	ङ
च	छ	ज	झ	ञ
च <sup>2</sup> (ch)	च <sup>2</sup> (chh)	ज <sup>2</sup> (j)	ज <sup>2</sup> (jh)	ञ
ट	ठ	ड	ढ	ण
ट <sup>2</sup> (ṭ)	ट <sup>2</sup> (ṭh)	ट <sup>3</sup> (ḍ)	ट <sup>4</sup> (ḍh)	ण
त	थ	द	ध	न
त <sup>2</sup>	त <sup>2</sup> (th)	त <sup>3</sup> (d)	त <sup>4</sup> (dh)	न
प	फ	ब	भ	म
प <sup>2</sup>	प <sup>2</sup> (ph)	प <sup>3</sup> (b)	प <sup>4</sup> (bh)	म

The existing vacant code points are best utilized for 4 Sonants alone. Aspirated alphabets, being combined alphabets are not grammatically allowed, in Tamil. Therefore pair of primary alphabets has been used without any violation of Tamil grammar. In the keyboard 10 keys are provided each aspirated alphabet. These keys will contain the pair to represent it, like ஃக, ஃக, etc. Therefore no code points are needed for the 10 aspirated alphabets. The first alphabet (ஃ) being silent or fixed, while the second alphabet will be receiving the 11 vowel signs, one at a time.

Similarly the reforming of vowel signs also is the need of the hour. During Tholkappier times, all the vowel consonants were single figured, according to his version, "புள்ளி இல்லா எல்லா மெய்யும்,..... ஆயிரியல".

During 7th century or so the system of vowel signs, similar to the present system came into existence, resulting in double and triple figured vowel consonants, facilitating to remember only about 60 shapes as against 247 or so. In type writer machine era, here and there some modifications were made, to suit the usage of type machine and also to facilitate printing process.

Now, in the computer era, the encoding problems arise, resulting in display and output deficiency, in Tamil documents. To overcome this, the Unicode consortium tries with the aid of UCNS and `_Indic_mantra_property`. But, the implementers find it very difficult to achieve the computing Skill of Indian languages.

The location of vowel signs is posing problems. Therefore the vowel signs have been reformed as per requirements of computing systems. Similarly, the double figured vowels "ஊ" and "ஔ" is reformed. The alphabet "ஐ" is so large and inconvenient to handle. So it has been replaced with a small compact shape. The shape of alphabet "஌" is unbalanced for positioning the vowel sign over it. The vertical line on extreme end is moved to the center and appears like ஌, inverted "T". All the above reforms will definitely upgrade the Tamil Script.

**Enclosure 1  
Code Chart for Tamil**

	0B8	0B9	0BA	0BB	0BC	0BD	0BE	0BF
0		ஐ		ர	ீ	ஓம்		ஓ
1			ய	ற	ீ			ஈ
2	Tamil Anusvara	ஓ		ல	ீ			ஊ
3	::	ஓ	ண	ள				ஊ
4		ஓ	த	ழ				ஊ
5	அ	க		வ				ஊ
6	ஆ		சு	ஸ	ீ		0	யு
7	இ	சு		ஷ	ீ	AU Length Mark	க	ஊ
8	ஈ		ந	ஸ	ீ		உ	ஊ
9	உ	ங	ன	சு			ந	ஊ
A	அ	சு	ப		ீ		சு	ஊ
B					ீ		ஊ	
C		ஐ	ஈ		ீ		ஊ	
D					ீ		எ	
E	எ	ஊ	ம	ீ			அ	
F	ஏ	iiiiiinviiii ↓	ய	ீ			ஊ	
	0B8	0B9	0BA	0BB	0BC	0BD	0BE	0BF

0B80

Tamil












0BFF

**Independent Vowels**












(1) 0B8A		TAMIL LETTER UU
(2) 0B94		TAMIL LETTER AU












**Consonants**

(3) 0B97		TAMIL LETTER GA
(4) 0B9F		TAMIL LETTER TTA
(5) 0BA1		TAMIL LETTER DDA
(6) 0BA6		TAMIL LETTER DA
(7) 0BAC		TAMIL LETTER BA
(8) 0BB9		TAMIL LETTER HA

(9) 0BBE		TAMIL VOWEL SIGN AA
(10) 0BBF		TAMIL VOWEL SIGN I
(11) 0BC0		TAMIL VOWEL SIGN II
(12) 0BC1		TAMIL VOWEL SIGN U
(13) 0BC2		TAMIL VOWEL SIGN UU
(14) 0BC6		TAMIL VOWEL SIGN E
(15) 0BC7		TAMIL VOWEL SIGN EE
(16) 0BC8		TAMIL VOWEL SIGN AI
(17) 0BCA		TAMIL VOWEL SIGN O
(18) 0BCB		TAMIL VOWEL SIGN OO
(19) 0BCC		TAMIL VOWEL SIGN AU

**DEPENDANT VOWEL SIGNS**

**Explanation for 11 reformed Vowel Signs:** (1) Hyphen for  (2) Forward slash for  (3) Vertical Hyphen with a small circle on top facing right for  (4) Backward slash for  (5) Vertical Hyphen with a small circle on top facing left for  (உஊ) (6) Hyphen below a small circle on left end of hyphen for  (7) Hyphen below a small circle on right end of hyphen for  (8) Hyphen below small circle on both right and left ends of hyphen for  (9) Hyphen above a small circle on left end of hyphen for  (10) Hyphen above a small circle on right end of hyphen for  (11) Hyphen above small circle on both right and left ends of hyphen for  (ஒள)

**Explanation for reformed shapes:** (1)  with a small forward slash below the right end of  for  (உஊ) as in  (2)  with another bigger circle over the smaller circle, at the bottom of  or a Hyphen above small circle at bottom for  (ஒள). (3)  instead of  (4) inverted  instead of 

**0B80**Tamil  
Vowels

(1) 0B813	ஊ	TAMIL AYTHAM
(2) 0B85	அ	TAMIL LETTER A
(3) 0B86	ஆ	TAMIL LETTER AA
(4) 0B87	இ	TAMIL LETTER I
(5) 0B88	ஈ	TAMIL LETTER II

Consonants

(12) 0B95	க	TAMIL LETTER KA
(13) 0B99	ங	TAMIL LETTER NGA
(14) 0B9A	ச	TAMIL LETTER CA
(15) 0B9C	ஜ	TAMIL LETTER JA
(16) 0B9E	ஞ	TAMIL LETTER NYA
(17) 0BA3	ண	TAMIL LETTER NNA
(18) 0BA4	த	TAMIL LETTER TA
(19) 0BA8	ந	TAMIL LETTER NA
(20) 0BA9	ன	TAMIL LETTER NNNA
(21) 0BAA	ப	TAMIL LETTER PA
(22) 0BAE	ம	TAMIL LETTER MA
(23) 0BAF	ய	TAMIL LETTER YA
(24) 0BB0	ர	TAMIL LETTER RA
(25) 0BB1	ற	TAMIL LETTER RRA
(26) 0BB2	ல	TAMIL LETTER LA
(27) 0BB3	ள	TAMIL LETTER LLA
(28) 0BB4	ழ	TAMIL LETTER LLLA
(29) 0BB5	வ	TAMIL LETTER VA
(30) 0BB6	ஸ	TAMIL LETTER SHA
(31) 0BB7	ஷ	TAMIL LETTER SSA
(32) 0BB8	ஸ	TAMIL LETTER SA
(33) 0BCD	ஃ	TAMIL SIGN VIRAMA

Tamil Sign

(34) 0BD0		TAMIL OM
(35) 0BD7		TAMIL LENGTH MARK

Tamil Digit

(36) 0BE6	0	TAMIL DIGIT ZERO
(37) 0BE7	௧	TAMIL DIGIT ONE

**Tamil**

(6) 0B89
(7) 0B8E
(8) 0B8F
(9) 0B90
(10) 0B92
(11) 0B93

உ	TAMIL LETTER U
எ	TAMIL LETTER E
ஏ	TAMIL LETTER EE
ஐ	TAMIL LETTER AI
ஓ	TAMIL LETTER O
ஔ	TAMIL LETTER OO

**0BFF**

(38) 0BE8	உ	TAMIL DIGIT TWO
(5439) 0BE9	ந	TAMIL DIGIT THREE
(40) 0BEA	ச	TAMIL DIGIT FOUR
(41) 0BEB	ஐ	TAMIL DIGIT FIVE
(42) 0BEC	க	TAMIL DIGIT SIX
(43) 0BED	எ	TAMIL DIGIT SEVEN
(44) 0BEE	அ	TAMIL DIGIT EIGHT
(45) 0BEF	க	TAMIL DIGIT NINE

**Tamil numerics**

(46) 0BF0	ௐ	TAMIL NUMBER TEN
(47) 0BF1	ௐ	TAMIL NUMBER ONE HUNDRED
(48) 0BF2	ௐ	TAMIL NUMBER ONE THOUSAND

**Tamil Symbols**

(49) 0BF3	ௐ	TAMIL Day Sign = naal
(50) 0BF4	ௐ	TAMIL MONTH SIGN = maatham
(51) 0BF5	ௐ	TAMIL Year Sign = varudam
(52) 0BF6	ௐ	TAMIL DEBIT SIGN = patru
(53) 0BF7	ௐ	TAMIL CREDIT SIGN = varavu
(54) 0BF8	ௐ	TAMIL AS ABOVE SIGN = merpadi

**Currency Symbol**

(55) 0BF9	ௐ	TAMIL RUPEE SIGN = rupai
(56) 0BFA		TAMIL NUMBER SIGN
(57) 0B82		TAMIL SIGN ANUSVARA



**Enclosure 2.1**  
Revised InScript Keyboard Layout

Common for All Scripts	Top row	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	shift	~	!	@	#	\$	%	^	&	*	(	)	_		
	ordinary	IR	1	2	3	4	5	6	7	8	9	0	-	=	\

1st row		1	2	3	4	5	6	7	8	9	10	11	12
shift	EN	Q	W	E	R	T	Y	U	I	O	P	{	}
	TA	ஃசு	ஃஜ	ஃய	ஃசு	ஃள	ஃ	ஃக	ஃச	ஃட	ஃத	ஃப	/
ordinary	EN	q	W	e	r	t	y	u	i	o	p	[	]
	TA	சு	ஐ	ஆ	ஈ	ய	ண	ங	கு	ள	ற	ன	;
2nd row		1	2	3	4	5	6	7	8	9	10	11	
shift	EN	A	S	D	F	G	H	J	K	L	:	"	
	TA	ஸ	ஷ	ஸ	ச	≤	ள	≥	சு	சு	ஐ	ய	
ordinary	EN	a	s	d	f	g	h	j	k	l	;	'	
	TA	ஓ	ஏ	அ	இ	உ	ப	ர	க	த	ச	ட	
3rd row		1	2	3	4	5	6	7	8	9	10		
shift	EN	Z	X	C	V	B	N	M	<	>	?		
	TA	[	]	{	}	:	"	'	<	>	?		
ordinary	EN	z	x	c	v	b	n	m	,	.	/		
	TA	ஓ	எ	ம	ந	வ	ல	ய	,	.	ழ		

Additional REVISED INSCRIPT<sup>^</sup> Keyboard

1st Row	1	2	3	4	5	6	7	8	9	10	11	12
Shift	Q	W	E	R	T	Y	U	I	O	P	{	}
	ஃ	ஃள	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃள
Ordinary	q	W	e	r	t	y	u	i	o	p	[	]
	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ	ஃ
2nd row	1	2	3	4	5	6	7	8	9	10	11	
Shift	A	S	D	F	G	H	J	K	L	:	"	
	க	உ	ந	ச	டு	க	எ	அ	க	ஓம்	ஸ்ரீ	
Ordinary	a	s	d	f	g	h	j	k	l	;	'	
	ய	சு	ள	உ	மீ	ஸ்ரீ	யு	ஸ்வ	ஸ்ரீ	ஸ்ரீ	நீ	
3rd Row	1	2	3	4	5	6	7	8	9	10		
Shift	Z	X	C	V	B	N	M	<	>	?		
	Additional Mathematical Operators & Symbols											
Ordinary	z	x	c	v	b	n	m	,	.	/		
	≠	±	∓	π	⊕	∂	™	®	©	Σ		

Enclosure 2.2  
Sorting Order for Tamil

2. Sorting order of Tamil Script after inclusion of 4 new characters

அ Series; க Series > ங Series > ச Series! > ஞ Series > ட Series >  
ண Series > த Series > ந Series > ப Series > ம Series >  
ய Series > ர Series > ல Series > வ Series > ழ Series >  
ள Series > ற Series > ன Series > ஊ Series > ங Series > ட Series > த Series >  
ய Series > ல Series > ழ Series > ட Series > ட Series >

Enclosure 3  
**Positional Property of Vowel Signs**

Sl.No	Code Points		Existing Vowel Signs	Positional Property	Status		Proposed Vowel Signs	Positional Property	Status
1	0BBE	ஆ	ா	Right	Working	ஆ	ஃ	Top Middle	Working
2	0BBF	இ	ி	Right	Bad	இ	ஃ	Top Middle	Working
3	0BC0	ஈ	ீ	Top	Working	ஈ	ஃ	Top Middle	Working
4	0BC1	உ	ூ	Many Types	Bad	உ	ஃ	Top Middle	Working
5	0BC2	ஊ	ூ	Many Types	Bad	ஊ	ஃ	Top Middle	Working
6	0BC6	எ	ே	Left	Bad	எ	ஃ	Top Middle	Working
7	0BC7	ஏ	ே	Left	Bad	ஏ	ஃ	Top Middle	Working
8	0BC8	ஐ	ை	Left	Bad	ஐ	ஃ	Top Middle	Working
9	0BCA	ஓ	ொ	Left and Right	Bad	ஓ	ஃ	Top Middle	Working
10	0BCB	ஔ	ோ	Left and Right	Bad	ஔ	ஃ	Top Middle	Working
11	0BCC	ஔ	ௌ	Left and Right	Bad	ஔ	ஃ	Top Middle	Working
12	0BCD	Con	஁	Top	Working	Con	ஃ	Top Middle	Working

## Enclosure 4

Unicode Character Named Sequence (UCNS) for Tamil Alphabets												
ஃ	அ	ஆ	இ	ஈ	உ	஁	எ	ஏ	ஐ	ஓ	ஔ	ஐ
0B83	0B85	0B86	0B87	0B88	0B89	0B8A	0B8E	0B8F	0B90	0B92	0B93	0B94
க்	க	க	க	கீ	க	க	க	க	க	க	க	க
0B95 0BCD	0B95	0B95 0BBE	0B95 0BBF	0B95 0BC0	0B95 0BC1	0B95 0BC2	0B95 0BC6	0B95 0BC7	0B95 0BC8	0B95 0BCA	0B95 0BCB	0B95 0BCC
க	க	க	க	க	க	க	க	க	க	க	க	க
0B97 0BCD	0B97	0B97 0BBE	0B97 0BBF	0B97 0BC0	0B97 0BC1	0B97 0BC2	0B97 0BC6	0B97 0BC7	0B97 0BC8	0B97 0BCA	0B97 0BCB	0B97 0BCC
ங்	ங	ங	ங	ஙீ	ங	ங	ங	ங	ங	ங	ங	ங
0B99 0BCD	0B99	0B99 0BBE	0B99 0BBF	0B99 0BC0	0B99 0BC1	0B99 0BC2	0B99 0BC6	0B99 0BC7	0B99 0BC8	0B99 0BCA	0B99 0BCB	0B99 0BCC
ச்	ச	ச	ச	சீ	ச	ச	ச	ச	ச	ச	ச	ச
0B9A 0BCD	0B9A	0B9A 0BBE	0B9A 0BBF	0B9A 0BC0	0B9A 0BC1	0B9A 0BC2	0B9A 0BC6	0B9A 0BC7	0B9A 0BC8	0B9A 0BCA	0B9A 0BCB	0B9A 0BCC
ஜ்	ஜ	ஜ	ஜ	ஜீ	ஜ	ஜ	ஜ	ஜ	ஜ	ஜ	ஜ	ஜ
0B9C 0BCD	0B9C	0B9C 0BBE	0B9C 0BBF	0B9C 0BC0	0B9C 0BC1	0B9C 0BC2	0B9C 0BC6	0B9C 0BC7	0B9C 0BC8	0B9C 0BCA	0B9C 0BCB	0B9C 0BCC
ஞ்	ஞ	ஞ	ஞ	ஞீ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ
0B9E 0BCD	0B9E	0B9E 0BBE	0B9E 0BBF	0B9E 0BC0	0B9E 0BC1	0B9E 0BC2	0B9E 0BC6	0B9E 0BC7	0B9E 0BC8	0B9E 0BCA	0B9E 0BCB	0B9E 0BCC
	ஊ											
0B9F 0BCD	0B9F	0B9F 0BBE	0B9F 0BBF	0B9F 0BC0	0B9F 0BC1	0B9F 0BC2	0B9F 0BC6	0B9F 0BC7	0B9F 0BC8	0B9F 0BCA	0B9F 0BCB	0B9F 0BCC
ஊ	ஊ	ஊ	ஊ	ஊீ	ஊ	ஊ	ஊ	ஊ	ஊ	ஊ	ஊ	ஊ
0BA1 0BCD	0BA1	0BA1 0BBE	0BA1 0BBF	0BA1 0BC0	0BA1 0BC1	0BA1 0BC2	0BA1 0BC6	0BA1 0BC7	0BA1 0BC8	0BA1 0BCA	0BA1 0BCB	0BA1 0BCC
ண்	ண்	ண்	ண்	ணீ	ண்	ண்	ண்	ண்	ண்	ண்	ண்	ண்
0BA3 0BCD	0BA3	0BA3 0BBE	0BA3 0BBF	0BA3 0BC0	0BA3 0BC1	0BA3 0BC2	0BA3 0BC6	0BA3 0BC7	0BA3 0BC8	0BA3 0BCA	0BA3 0BCB	0BA3 0BCC
த்	த	த	த	தீ	த	த	த	த	த	த	த	த
0BA4 0BCD	0BA4	0BA4 0BBE	0BA4 0BBF	0BA4 0BC0	0BA4 0BC1	0BA4 0BC2	0BA4 0BC6	0BA4 0BC7	0BA4 0BC8	0BA4 0BCA	0BA4 0BCB	0BA4 0BCC
த்த	த்த	த்த	த்த	த்தீ	த்த	த்த	த்த	த்த	த்த	த்த	த்த	த்த
0BA6 0BCD	0BA6	0BA6 0BBE	0BA6 0BBF	0BA6 0BC0	0BA6 0BC1	0BA6 0BC2	0BA6 0BC6	0BA6 0BC7	0BA6 0BC8	0BA6 0BCA	0BA6 0BCB	0BA6 0BCC
ந்	ந	ந	ந	நீ	ந	ந	ந	ந	ந	ந	ந	ந
0BA8 0BCD	0BA8	0BA8 0BBE	0BA8 0BBF	0BA8 0BC0	0BA8 0BC1	0BA8 0BC2	0BA8 0BC6	0BA8 0BC7	0BA8 0BC8	0BA8 0BCA	0BA8 0BCB	0BA8 0BCC
ப்	ப	ப	ப	பீ	ப	ப	ப	ப	ப	ப	ப	ப
0BAA 0BCD	0BAA	0BAA 0BBE	0BAA 0BBF	0BAA 0BC0	0BAA 0BC1	0BAA 0BC2	0BAA 0BC6	0BAA 0BC7	0BAA 0BC8	0BAA 0BCA	0BAA 0BCB	0BAA 0BCC
ம்	ம	ம	ம	மீ	ம	ம	ம	ம	ம	ம	ம	ம
0BAC 0BCD	0BAC	0BAC 0BBE	0BAC 0BBF	0BAC 0BC0	0BAC 0BC1	0BAC 0BC2	0BAC 0BC6	0BAC 0BC7	0BAC 0BC8	0BAC 0BCA	0BAC 0BCB	0BAC 0BCC
ய்	ய	ய	ய	யீ	ய	ய	ய	ய	ய	ய	ய	ய
0BAE 0BCD	0BAE	0BAE 0BBE	0BAE 0BBF	0BAE 0BC0	0BAE 0BC1	0BAE 0BC2	0BAE 0BC6	0BAE 0BC7	0BAE 0BC8	0BAE 0BCA	0BAE 0BCB	0BAE 0BCC
ய்	ய	ய	ய	யீ	ய	ய	ய	ய	ய	ய	ய	ய
0BAF 0BCD	0BAF	0BAF 0BBE	0BAF 0BBF	0BAF 0BC0	0BAF 0BC1	0BAF 0BC2	0BAF 0BC6	0BAF 0BC7	0BAF 0BC8	0BAF 0BCA	0BAF 0BCB	0BAF 0BCC

**Unicode Character Named Sequence (UCNS) for Tamil Alphabets**

ர்	ர	ர̄	ர்	ரீ	ர	ரீ	ர்	ர்	ரீ	ர்	ர்	ர்
0BB0 0BCD	0BB0	0BB0 0BBE	0BB0 0BBF	0BB0 0BC0	0BB0 0BC1	0BB0 0BC2	0BB0 0BC6	0BB0 0BC7	0BB0 0BC8	0BB0 0BCA	0BB0 0BCB	0BB0 0BCC
ல்	ல	ல̄	ல்	லீ	ல	லீ	ல்	ல்	லீ	ல்	ல்	லீ
0BB2 0BCD	0BB2	0BB2 0BBE	0BB2 0BBF	0BB2 0BC0	0BB2 0BC1	0BB2 0BC2	0BB2 0BC6	0BB2 0BC7	0BB2 0BC8	0BB2 0BCA	0BB2 0BCB	0BB2 0BCC
வ்	வ	வ̄	வ்	வீ	வ	வீ	வ்	வ்	வீ	வ்	வ்	வீ
0BB5 0BCD	0BB5	0BB5 0BBE	0BB5 0BBF	0BB5 0BC0	0BB5 0BC1	0BB5 0BC2	0BB5 0BC6	0BB5 0BC7	0BB5 0BC8	0BB5 0BCA	0BB5 0BCB	0BB5 0BCC
ழ்	ழ	ழ̄	ழ்	ழீ	ழ	ழீ	ழ்	ழ்	ழீ	ழ்	ழ்	ழீ
0BB4 0BCD	0BB4	0BB4 0BBE	0BB4 0BBF	0BB4 0BC0	0BB4 0BC1	0BB4 0BC2	0BB4 0BC6	0BB4 0BC7	0BB4 0BC8	0BB4 0BCA	0BB4 0BCB	0BB4 0BCC
ள்	ள	ள̄	ள்	ளீ	ள	ளீ	ள்	ள்	ளீ	ள்	ள்	ளீ
0BB3 0BCD	0BB3	0BB3 0BBE	0BB3 0BBF	0BB3 0BC0	0BB3 0BC1	0BB3 0BC2	0BB3 0BC6	0BB3 0BC7	0BB3 0BC8	0BB3 0BCA	0BB3 0BCB	0BB3 0BCC
ற்	ற	ற̄	ற்	றீ	ற	றீ	ற்	ற்	றீ	ற்	ற்	றீ
0BB1 0BCD	0BB1	0BB1 0BBE	0BB1 0BBF	0BB1 0BC0	0BB1 0BC1	0BB1 0BC2	0BB1 0BC6	0BB1 0BC7	0BB1 0BC8	0BB1 0BCA	0BB1 0BCB	0BB1 0BCC
ன்	ன	ன̄	ன்	னீ	ன	னீ	ன்	ன்	னீ	ன்	ன்	னீ
0BA9 0BCD	0BA9	0BA9 0BBE	0BA9 0BBF	0BA9 0BC0	0BA9 0BC1	0BA9 0BC2	0BA9 0BC6	0BA9 0BC7	0BA9 0BC8	0BA9 0BCA	0BA9 0BCB	0BA9 0BCC
ஸ்	ஸ	ஸ̄	ஸ்	ஸீ	ஸ	ஸீ	ஸ்	ஸ்	ஸீ	ஸ்	ஸ்	ஸீ
0BB8 0BCD	0BB8	0BB8 0BBE	0BB8 0BBF	0BB8 0BC0	0BB8 0BC1	0BB8 0BC2	0BB8 0BC6	0BB8 0BC7	0BB8 0BC8	0BB8 0BCA	0BB8 0BCB	0BB8 0BCC
ஸ்	ஸ	ஸ̄	ஸ்	ஸீ	ஸ	ஸீ	ஸ்	ஸ்	ஸீ	ஸ்	ஸ்	ஸீ
0BB6 0BCD	0BB6	0BB6 0BBE	0BB6 0BBF	0BB6 0BC0	0BB6 0BC1	0BB6 0BC2	0BB6 0BC6	0BB6 0BC7	0BB6 0BC8	0BB6 0BCA	0BB6 0BCB	0BB6 0BCC
ஷ்	ஷ	ஷ̄	ஷ்	ஷீ	ஷ	ஷீ	ஷ்	ஷ்	ஷீ	ஷ்	ஷ்	ஷீ
0BB7 0BCD	0BB7	0BB7 0BBE	0BB7 0BBF	0BB7 0BC0	0BB7 0BC1	0BB7 0BC2	0BB7 0BC6	0BB7 0BC7	0BB7 0BC8	0BB7 0BCA	0BB7 0BCB	0BB7 0BCC
ச்	ச	ச̄	ச்	சீ	ச	சீ	ச்	ச்	சீ	ச்	ச்	சீ
0BB9 0BCD	0BB9	0BB9 0BBE	0BB9 0BBF	0BB9 0BC0	0BB9 0BC1	0BB9 0BC2	0BB9 0BC6	0BB9 0BC7	0BB9 0BC8	0BB9 0BCA	0BB9 0BCB	0BB9 0BCC

Note: UCNS is most important aspect to be implemented strictly and jointly by Unicode Consortium and Implementers to achieve computing skill for Tamil Script with the aid of positional property etc. Otherwise, the deficiencies will continue to exist.